WO 2004/107664 PCT/KR2004/001308

<u>CLAIMS</u>

1. A router for supporting an Inverse Multiplexing over ATM (IMA) function in a mobile communication network, said router comprising:

a CPU for converting into ATM cells from a plurality of Ethernet packets inputted from network processors connected to subscribers and outputting the converted ATM cells, and for converting into Ethernet packets from a plurality of ATM cells inputted from said CPU and distributing to the network processors the converted Ethernet packets;

an ATM multiplexer/demultiplexer connected to said CPU for multiplexing or demultiplexing the ATM cells;

an IMA processor connected to said ATM multiplexer/demultiplexer for converting into Pulse Code Modulation (PCM) packets from ATM cells inputted from said ATM multiplexer /demultiplexer and grouping the PCM packets, and for converting into ATM cells from grouped PCM packets and outputting to said ATM multiplexer/demultiplexer the converted ATM cells; and

a line interface unit for transmitting to a general network the grouped PCM packets via a line (e.g., E1 or T1) and outputting to said IMA processor grouped PCM packets inputted from the general network.

20

15

5

10

2. The router according to Claim 1, wherein said IMA processor monitors the status of the E1 or T1 link and, upon detection of an occurrence of a failure of the link, informs an operator of the occurrence of the failure.